

**MONITORING, VERIFICATION AND EVALUATION UNIT
AGRICULTURAL POLICY REFORM PROGRAM**

**MVE UNIT
APRP**

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**ACCOMPLISHMENTS
IN AGRICULTURAL
POLICY REFORM IN
EGYPT, 1997-2001**

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LIST OF ACRONYMS

ACC	Agricultural Commodity Council(s)
ACs	Affiliated Companies
ALCOTEXA	Alexandria Cotton Exporters Association
ALWRIUS	Agricultural Land and Water Resource Investments, Utilization and Sustainability
APCP	Agricultural Production and Credit Project
APRP	Agricultural Policy Reform Program
ARC	Agricultural Research Center
ASSS	Agricultural Sector Support Services
CAPMAS	Central Agency for Public Mobilization and Statistics
CATGO	Cotton Arbitration and Testing General Organization
CSPP	Cotton Sector Promotion Program
EAS	Economic Affairs Sector (MALR)
EEPC	Egyptian Export Promotion Center (of MFT)
EPIQ	Environmental Protection Indefinite Quantity Contract
EU	European Union
FSPA	Food Security and Poverty Alleviation
FSRU	Food Security Research Unit of APRP
GASC	General Administration for Supply Commodities (within MSIT)
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GOE	Government of Egypt
GOEIC	General Organization for Export and Import Control
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HC	Holding Company
HE	His Excellency
IAS	Irrigation Advisory Service
IFPRI	International Food Policy Research Institute
IMT	Irrigation Management Transfer
LE	Egyptian Pound
MALR	Ministry of Agriculture and Land Reclamation
MD	Managing Director
MEFT	former Ministry of Economy and Foreign Trade (former name of MFT)
MFT	Ministry of Foreign Trade (formerly MEFT)
MISD	Matching irrigation supply and demand
MOU	Memorandum of Understanding
MPE	Ministry of Public Enterprise
MPWWR	Ministry of Public Works and Water Resources (former name of MWRI)
MSHT	Ministry of Supply and Home Trade
MTS	former Ministry of Trade and Supply
MVE	Monitoring, Verification, and Evaluation Unit of APRP
MWRI	Ministry of Water Resources and Irrigation
PAU	Policy Analysis Unit (MALR)

PBDAC	Principal Bank for Development and Agricultural Credit
PIPA	Private Investment and Privatization in Agribusiness
PMT	Prices, Markets, and Trade
PPC	Program Planning Committee
RDI	Reform Design and Implementation Unit of APRP
SPS	Sanitary and Phytosanitary
USAID	United States Agency for International Development
WPAU	Water Policy Advisory Unit
WTO	World Trade Organization
WUA	Water User Association(s)

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The author and the MVE Unit alone are responsible for any errors and omissions. The findings and conclusions of this study are those of the MVE Unit and not of the APRP as a whole or USAID.

PREFACE

The Agricultural Policy Reform Program (APRP) is designed to increase economic growth in Egypt through: 1) open and competitive agricultural markets; 2) growth of exports and trade; 3) liberal conditions favoring private investment, including the privatization of GOE-owned enterprises in agriculture and agribusiness; 4) increased efficiency and productivity of Egypt's Nile water system and land resources, and 5) a more efficient food subsidy system.

The APRP program operated through the agreement of the GOE and USAID on an annual set of benchmarks (often with specific indicators). These reforms were implemented by the GOE, with assistance from the RDI Unit. This accomplishment was then verified by the MVE Unit, after which a disbursement was made to the GOE by USAID.

The MVE Unit's impact assessment program attempts to determine in depth the ultimate impacts of the program. It builds on the verification reports produced for each tranche of benchmarks and the monitoring reports produced by the Unit, which examine the first-round effects of the reforms.

This report provides background for several MVE reports that assess specific impacts of the project. It summarizes the policy reforms (benchmarks and indicators) attempted and accomplished, analyzes the main thrusts of the program and the sequence and continuity of reform efforts, and derives lessons learned.

EXECUTIVE SUMMARY

The general objectives of the Agricultural Policy Reform Program (APRP) are: increased economic growth through: 1) open and competitive agricultural markets; 2) growth of exports and trade based on Egypt's comparative advantage; 3) liberal conditions favoring private investment, including the privatization of GOE-owned enterprises; 4) increased efficiency and productivity of Egypt's Nile Water System and land resources, and 5) targeted food subsidies.

Following seven tranches of agricultural policy reforms (benchmarks) in APCP, APRP implemented five tranches of such benchmarks. Although its number of tranches is fewer than under APCP, when APRP began, there were five ministries working under the program (MALR, MWRI, MSHT, MEFT, and MPE), reflecting the much broader scope of the policy reforms to be undertaken by the Government. While APCP had started agricultural policy reform by working mostly at the production level, APRP extended these efforts to the marketing system, exports, privatization, development of agricultural support services, irrigation management, food security, and related areas. Although its effective time period for accomplishing benchmarks (1997-2001) is considerably shorter than that of APCP (1987-1995), the size and length of the APRP program still allowed for substantial continuity of effort and significant achievements.

In all there were 151 benchmarks and 242 indicators under APRP. The largest number of indicators was agreed to in the category, Agricultural Sector Support Services, which covers areas as diverse as government procedures and regulations, institutional development, information systems, and the roles of the public and private sectors in such key areas as research/extension, seed production and distribution, and pesticide use and control. Other key areas of the APRP program were privatization of firms in key agriculture-related industries, market liberalization, and the management of basic resources like water and land. A small number of benchmarks was included on food security-related topics.

If one categorizes the benchmarks and indicators primarily (and uniquely) by input or output commodity, then the most prevalent are in the areas of cotton (51), seed (22), water management policy (18), and rice (14). Other important thrusts were: information, pest control, development of public institutions, water quality, research/extension, horticulture, subsidies and taxes, water, and fertilizer. Summarizing these thrusts, one can see that outputs (with 88 indicators) and inputs (with 89 indicators) were equally important, and other thrusts were also significant (65 indicators). The main thrusts other than outputs and inputs reflect important contributions of APRP to changes in the roles of the public and private sectors and the development of each. Thus there were significant numbers of indicators in each of the following thrusts: information (12), development of public institutions (11), research/extension (10), and development of private institutions (5).

If instead one categorizes the benchmarks and indicators primarily (and uniquely) by function or topic other than input or output commodity, then the most prevalent are in the areas of regulation (34), privatization/private investment (33), liberalization - marketing (24), water management policy (22), and research/extension (22). Also important were trade and tariffs, development of public institutions, development of private institutions, information, water quality, production, liberalization - pricing/subsidies, and food security.

With the exception of cotton and rice, on which efforts were more prolonged, market *liberalization* efforts were heavily concentrated in tranches I and II, indeed mostly tranche I. Commodities covered in this area also included fertilizer, pest control, seed, tractors, horticulture, meat, and wheat. *Privatization* benchmarks were common in the early part of APRP. In tranches I through III, these were primarily designed to transfer nationalized firms or their factories back to the private sector. Such privatization was attempted in cotton ginning, cotton spinning, and cotton trading; fertilizer plants; rice mills; and seed.

Reforms under the ASSS category were mainly in the areas of *regulations and procedures, institutional development, and information*. Taken as a whole, this often meant a new balance between the role of the public sector and that of the private sector, a balance more appropriate for a market-based economy. There were benchmarks addressing issues in research and extension in all five tranches, including ones to craft a new role for extension and transfer of some to the private sector, and one to develop the use of intellectual property rights in the ARC and its private partners. There were ASSS benchmarks in four of the five tranches covering cotton, pest control, information, and seed.

Private institutional development was concentrated in the last three tranches and was focused on the development of trade associations for policy advocacy. In the public sector, institutional development benchmarks promoted the establishment of the Policy Analysis Unit in MALR, institutionalized the Irrigation Advisory Service in MWRI, led to changes in the structure of PBDAC, and promoted public participation in policy making at MEFT (now MFT) and MWRI. There were transport procedures-related benchmarks in tranches III and IV targeted at increasing horticultural exports.

Benchmarks in the ALWRIUS category were largely focused on *water, its management, conservation, quality, and optimal allocation* to crops and regions. Associated topics included rice, sugarcane, and cropping pattern; fish; land; and cost sharing. Efforts in water management and water quality began in tranche I and continued in each tranche of the program. Improvements in water management policy included decentralization of water allocation decisions, partly through the better utilization of previously installed telemetry technology. MWRI also developed revisions to Law 12 intended to improve water management. Water quality was addressed mostly through a program of better management of the re-use of irrigation water discarded into drains.

Probably the most critical effort in the water area is the establishment of::

a system that improves the flow of real-time information between MALR and MWRI with respect to irrigation demands and supplies. This work corrected a gap in the water management system that had existed since the mid-1980s, when farmers were given back the right to plan their own cropping patterns, but there was little corresponding adjustment in the way water was allocated.

The emphasis of the APRP program can also be seen in those topics that were addressed consistently. The following topics warranted benchmarks in at least four of the five tranches: cotton marketing, cotton pest control, cotton varieties/quality, food security/subsidies, information, research/extension, seed regulation, water management, water quality, and the involvement of water users in water management.

There is some evidence that the APRP program became more focused with successive tranches. There was also some addition of new topics as the end of the program approached. Topics like women, fish production, and child labor had never been addressed or mentioned in previous work. The number of such new topics was not significant, however, so one can still say that overall, the program became more focused as it proceeded.

The percent of the APRP benchmarks/indicators accomplished or exceeded by tranche was as follows: I, 83%; II, 76%; III, 71%; IV, 70%; V, 100%; for the five tranches together, the accomplishment level was 81%.

The scope of this report does not include assessment of the impact of APRP benchmarks. That task is undertaken in other studies of the MVE Unit. However, it is clear that some individual benchmarks have had, or will have, a very significant impact. One might consider APRP successful even if only the impacts of these few benchmarks were achieved. Each of the individual APRP benchmarks mentioned in the following table has had, or is very likely to have, a major impact. Some benchmarks are grouped together to demonstrate how they complemented each other.

Focus of Benchmark(s)	Benchmark Topic(s) and Number(s)
Private sector entry into cotton marketing	Cotton marketing rings (V, D.1 and several previous benchmarks); CATGO collection, dissemination of data (V, D.2)
Privatization of cotton processing	Ginning (I, I.A.1.3.b); spinning (I, II.A.2)
Crop-related water management and conservation	Matching irrigation supply and demand (IV, C.1); Rice and sugar cane water use (II, C.4, C.5)
Data collection, dissemination	Farm income data (IV, D.7)
Withdrawal of GOE from cotton pest management	Cotton pest control (IV, D.6; I, I.A.I4c(ii); II, C.9; and III, D.7)
Development of private policy advocacy groups	Private (export) associations (III, D.2); Commodity councils (IV, D.1 and V, D.6)
Food production	Restocking the Nile with fish (V, E.2)

Most of the impact of APRP policy reforms generally comes directly from the reform itself. However, some longer-run benefits of benchmark implementation under APRP have included:

- Fostering inter-ministry and inter-agency cooperation
- Building capacity
- Supporting reform champions
- Promoting changes in attitudes and approaches

APRP demonstrated the utility of testing approaches with a pilot program based on a new policy and then expanding the program steadily after modification based on the pilot experience. The pilot program is not a novel idea, but incorporating this concept into a policy reform program was somewhat new. Examples include the matching irrigation supply and demand program, the collection of farm income data, and the shortening of the rice irrigation cycle to encourage the use of short-season varieties and thereby save water.

The experience of APRP reveals much about the pace of reform that is possible even in the context of a gradualist approach like that of the GOE. One can make significant progress in changing old ways of doing business if patience, assistance and consensus building are applied, where the last means that stakeholders are informed and involved. The withdrawal of the GOE from cotton pest management was not possible in one tranche (tranche I), but over several years, it was accomplished. This kind of progress requires the focusing of resources in certain areas. It thereby argues for the limitation of project activities to those that are deemed most important, as opposed to answering any and all requests for assistance from other projects and those in the private sector.

The focused approach in turn requires 1) careful program design to determine priority areas for reform and 2) a general commitment by the sponsors (donor and GOE) and the implementation team(s) to stay the course. Some picking of “low-hanging fruit” (easy reforms) is reasonable, however, to ensure that the participants in reform see progress and feel successful.

In addition to incorporating the “expected” reforms in areas like market liberalization, reorientation of the GOE role, and privatization, APRP demonstrated the importance of information and analysis to a market system. It is interesting to see this theme running through a number of benchmarks, but especially in the final tranche of APRP (see details in section 4.2.3). In addition to these lessons, the experience of implementing APRP shows that there would be benefits to lengthening the reform design cycle (see section 4.2.4).

1. INTRODUCTION

1.1 Background

Modern economic policy reform in Egypt began in the agricultural sector in about the mid-1980s. One major vehicle for these reforms was the Agricultural Production and Credit Project (APCP), which was implemented from 1986 to 1996. One key aspect of this project was an annual program of reforms, or “benchmarks,” that were agreed to by the Government of Egypt (GOE), primarily the Ministry of Agriculture and Land Reclamation, and USAID. After the accomplishment of these benchmarks was “verified” in an annual report, USAID made a disbursement of grant assistance to the Government.

Following seven tranches of agricultural policy reforms (benchmarks) in APCP, the Agricultural Policy Reform Program (APRP) has implemented five tranches of such benchmarks. For administrative reasons, the MOU for tranche I was signed before the technical assistance teams arrived in Egypt. Thus, during tranche I, before the MVE Unit could undertake verification, it was necessary for the technical assistance teams to meet with the representatives of the GOE and USAID to clarify the nature of each benchmark. The understandings reached were put in the verification plan prepared by the MVE Unit. This process developed further in tranche II, in which after discussion with the GOE and USAID, the MVE Unit included indicators for each benchmark in its verification plan, which then officially became part of the MOU. From tranche III onward, at the urging of the MVE Unit, indicators for each benchmark were agreed to by the GOE and USAID before signing the MOU, and as part of it.

The benchmarks of tranches I and II of APRP were sometimes divided into (or contained) two or more subparts. In successive tranches these different required actions were put in separate, numbered indicators.¹ The following table (table 1-1) and others in this report reflect the division of benchmarks into subparts and indicators during the different tranches of APRP. For the purposes of this analysis, when the “number of indicators” is used for quantification, this means the number of separate actions required by the MOU, whether this was specified through indicators or otherwise.

¹There remained some instances, nevertheless, when one indicator contained more than one required action, or even action by more than one deadline.

Table 1-1: APRP Benchmarks and Indicators, by Tranche

Tranche	Deadline for Accomplishment	Number of Benchmarks	Number of Indicators
I	35610	55	72
II	35975	29	53
III	36340	29	48
IV	36890	20	37
V	37255	18	32
Total		151	242

Notes:

Tranche I: Two benchmarks on feed and two on privatization of spinning firms were recommended to be included in tranche II, but these recommendations were not implemented, so these benchmarks are not counted here or in tranche II. The final accomplishment deadline for those benchmarks in tranche I not accomplished by June 30, 1997 was reset to December 31, 1997.

Tranche II: One benchmark (on politically and socially acceptable options for targeting food subsidies) was included in the MOU and then dropped from consideration after submission of the verification report; it is counted here.

Tranche III: One benchmark (on textile inventories) in the MOU could not be verified; the benchmark and its two indicators are included here.

Tranche IV: This tranche contained indicators to be completed both by December 31, 2000 (Phase I) and by December 31, 2001 (Phase II). The total numbers of benchmarks and indicators is given here.

Tranche V: One benchmark (on fortification of bread with iron) was deleted during the ratification process of the MOU; this benchmark and its indicators are not included here.

From the table 1-1, it is clear that the number of benchmarks and indicators declined with each successive tranche. Did this mean that the policy reform program became more focused, smaller in size, or some combination of the two? This issue is discussed in chapter 2.

Although its number of tranches is fewer than under APCP, when APRP began, there were five ministries working under the program, reflecting the much broader scope of the policy reforms to be undertaken by the Government. While APCP had started agricultural policy reform by working mostly at the production level, APRP extended these efforts to the marketing system, exports, privatization, development of agricultural support services, irrigation management, food security, and related areas. These areas are the purview of the following technical ministries, which are collaborating under APRP: Agriculture and Land Reclamation, Water Resources and Irrigation, Supply and Home Trade, Economy and Foreign Trade, and Public Enterprise. Other ministries have occasionally cooperated with APRP as well. The tranche II MOU states that the general objectives of APRP are:

increased economic growth through: 1) open and competitive agricultural markets; 2) growth of exports and trade based on Egypt's comparative advantage; 3) liberal conditions favoring private investment, including the privatization of GOE-owned enterprises in agriculture and agribusiness; 4)

increased efficiency and productivity of Egypt's Nile Water System and land resources, including increased effectiveness of public investment in government services such as market information services, research and consumer protection and 5) targeted food subsidies that reduce budget expenditures, ease the shock of market reforms for the poorest and stabilize food supplies.

In addition to a broader scope, APRP has a much larger technical assistance staff than APCP to design, implement, verify, monitor, and assess the impact of APRP benchmarks and associated activities. The MVE Unit carries out the verification, monitoring and impact assessment of APRP. The APRP program also incorporates the notion of using the funds disbursed to the Government after accomplishment of benchmarks for project-related activities. These funds have often been very useful for funding pilot or other activities that demonstrate the benefits of the new policies².

Although its effective time period for accomplishing benchmarks(1997-2001) is considerably shorter than that of APCP (1987-1995), the size and length of the APRP program still allow for substantial continuity of effort and significant achievements. It is to these achievements in reform that this report is addressed.

1.2 Objectives

The objective of this study is to distill the basic accomplishments of APRP in agricultural policy reform through a careful study of the benchmarks implemented and their level of accomplishment. The study does *not* seek to determine the impact of the reforms, an objective that will be met through other studies in the impact assessment program of the Unit. This study, however, provides a history of policy reform under APRP as a foundation for the impact assessment reports.

1.3 Methods of Analysis

In each tranche³ the benchmarks were assigned in the MOU (sometimes arbitrarily) to the following categories according to their medium or long-term goal:

- Prices, Markets and Trade (PMT)
- Private Investment and Privatization in Agribusiness⁴ (PIPA)
- Agricultural Land and Water Resource Investments, Utilization and Sustainability (ALWRIUS)
- Agricultural Sector Support Services (ASSS)
- Food Security and Poverty Alleviation (FSPA)

²This was done with a number of activities, including short-season rice varieties, sugarcane irrigation, export-oriented extension, matching irrigation supply and demand, introducing new fruit varieties, and farm income data collection.

³In the tranche I MOU, there were only four categories: essentially there was one category combining ASSS and ALWRUIS. The name of the last category was Taxes, Subsidies, and Food Security.

⁴“In Agribusiness” was added to the title of this category in tranche IV.

After tranche III, no benchmarks were put into the first two categories, although the subject of some benchmarks in tranches IV and V was very similar to that of benchmarks in those two categories in the first three tranches. For this reason and because assignments to categories in the MOUs was sometimes arbitrary, *in this report all benchmarks are reclassified into the above categories according to their subject, regardless of where they were listed in the MOUs, and analyzed accordingly.*

Beyond the goal level, two methods of classification are used in this report. “Commodity emphasis” means that an effort was made to assign a commodity (agricultural output or input) to each indicator. Those indicators that did not refer specifically to a commodity were assigned another topic. Of course those indicators that were assigned a commodity also have relevant topics that could be assigned to them; for example, indicators dealing with the production of cotton, rice, and sugarcane are put into those individual crop thrusts, rather than in the topic, “cropping pattern,” where more general indicators are contained. Alternatively, a “non-commodity” classification is also used. “Non-commodity” emphasis means that issues or topics cutting across commodities were the primary way of classifying indicators. By using both of these methods of classification, the analysis can provide a better picture of the reforms attempted and accomplished by APRP.

Using the number of indicators to measure the importance of topics covered by APRP is of course a crude method. Sometimes one indicator, when accomplished, will have a tremendous impact on the functioning of some part of the agricultural economy. Conversely, two or three indicators were often used in combination in APRP to ensure that the proper ends for a particular benchmark were achieved, and the greater number of indicators in that case does not by itself mean that that benchmark was more important than others. Based on an analysis of the numbers of benchmarks and indicators by tranche and by goal, one would expect small biases toward tranches other than tranche I (ratio of indicators to benchmarks of 1.65-1.85 vs. 1.3 for tranche I; see table 1-1) and toward categories PMT and ASSS (ratio of benchmarks to indicators of 1.75-1.8 vs. 1.2-1.5 for the other categories; table 2-1 gives the number of indicators). To partly mitigate this crudeness of analysis, the author attempts in the report to highlight some of those benchmarks and/or indicators that are likely to have the greatest impact.

All of the benchmark-related analysis in this study is based on the benchmarks and indicators in the MOUs for the five tranches of APRP and the author’s classifications and analyses of them. Thus no sources are provided for the tables below, unless another source is used.

1.4 Overview of Study

The author has made extensive use of the MVE Unit's KuNUZ Lotus Notes electronic database of benchmarks and their levels of accomplishment (which are drawn from the MVE Unit’s verification reports for each tranche). The chapters that follow:

- Define APRP thrusts (by commodity, by issue/topic⁵, etc.) and categorize the benchmarks according to these thrusts to understand their mix and relative importance (Chapter 2)
- Examine the pattern, sequence and extent of continuity of efforts in key areas of thrust (Chapter 2)
- Determine if there are any interrelationships among different thrusts, and, if so, examine these interrelationships and the timing of their initiation and implementation (Chapter 2)
- Examine levels of accomplishment by thrust, including whether there was improvement in accomplishment over the course of the program and whether this occurred in particular thrusts (Chapter 3)
- Suggest possible reasons for higher and lower accomplishment in different benchmarks and thrusts (Chapter 3)
- Assess broadly the success of the program in undertaking and accomplishing reforms over a broad swath of the economy (Chapter 4)
- Distill lessons learned about the scope and length of programs that attempt policy reform in Egypt (Chapter 4)

⁵For bureaucratic reasons, APRP benchmarks were not always categorized in meaningful ways within their respective MOUs. Part of this task will therefore be to reassess where these benchmarks really belong. Thrusts are often cross-cutting; i.e., one benchmark could be categorized as belonging to more than one thrust; e.g., a benchmark covering subsidies for cotton pest control could be categorized under cotton, subsidies, and/or pest control.

2. MAIN THRUSTS OF APRP

2.1 Distribution of APRP Benchmarks by Goal

The table 2-1 shows the distribution of APRP benchmarks by goal, namely the five categories used in the MOU. However, it should be remembered that the table shows this distribution *after* the author reclassified the actual benchmarks according to their true category, since for bureaucratic reasons, benchmarks were sometimes placed arbitrarily in categories in a manner inconsistent with their subject matter⁶.

The largest number of indicators was agreed to in the category, Agricultural Sector Support Services, which covers areas as diverse as government procedures and regulations, institutional development, information systems, and the roles of the public and private sectors in such key areas as research/extension, seed production and distribution, and pesticide use and control. Other key areas of the APRP program were privatization of firms in key agriculture-related industries, market liberalization, and the management of basic resources like water and land. A small number of benchmarks was included on food security-related topics.

Table 2-1: APRP Indicators (All Five Tranches), by Goal

Category	Number of Indicators
Prices, Markets, and Trade	49
Private Investment and Privatization in Agribusiness	42
Agricultural Land and Water Resource Investments, Utilization and Sustainability	50
Agricultural Sector Support Services	90
Food Security and Poverty Alleviation	11
Total	242

2.2 Distribution of APRP Benchmarks by Thrust

Table A-1 of the Appendix gives the full set of data on APRP indicators classified by goal, tranche, and thrust. Table 2-2 summarize these data by thrust (using two different emphases to categorize the thrust); table 2-4 further organizes these results into indicators related to outputs and inputs, and other indicators.

The data in the table 2-3 show that commodity-related thrusts can be used to classify 73 percent of the indicators. Inputs and outputs received approximately the same amount of attention (as measured crudely by the number of indicators): 36 percent of the indicators fall under outputs

⁶ Before recategorization, the numbers of indicators by goal were as follows: PMT, 63; PIPA, 27; ALWRIUS, 56; ASSS, 81; FSPA, 15.

and 37 percent, under inputs. Cotton and water received the most attention of the program, while rice, seed, and pest control were also emphasized. Cotton is the largest agricultural subsector in Egypt, containing numerous key industries like spinning and weaving and providing significant export revenues, and water is perhaps the most important agricultural resource, so these allocations are appropriate and not surprising. Water policy in APRP was the main focus of an entire unit in the project (WPAU/EPIQ), as well as an important component of the work of the RDI Unit.

The rice crop is a major user of water and leads to important exports. Pest control (of cotton) is an important area in which the GOE took the dramatic step of withdrawing from management and turning this over to the private sector, after making provision for government regulation in the areas of safety and quality control. Horticulture is an area in which the GOE hopes for significant increases in exports, so it has strived to make its policies even more conducive. The liberalization of the critical nitrogenous fertilizer market began during APCP, and the steps taken at the beginning of APRP consolidated this progress.

When indicators are grouped with a commodity emphasis, the main thrusts other than outputs and inputs reflect important contributions of APRP to changes in the roles of the public and private sectors and the development of each. Thus there were significant numbers of indicators in each of the following thrusts:

- Government Services - Information (12)
- Institutional Development - Public (11)
- Government Services - Research/Extension (10)
- Institutional Development - Private (5)

This significant number of non-commodity topics leads naturally to an examination of the thrusts of APRP from a non-commodity, or more conceptual, point of view. Table 2-5 shows the emphases of APRP when all benchmarks/indicators are classified first according to topical area rather than commodity.

Table 2-2: Main Thrusts (Commodity Emphasis) and Reforms Attempted

Thrust	Nature of Reforms Attempted
Cotton	Market liberalization in lint and yarn (including production choice, domestic marketing, exports of lint and yarn), privatization of gins and spinning companies through sale and leasing, reduction of textile inventory, testing of short-season and <i>Hirsutum</i> varieties, support for cotton logo development, required HVI testing of quality and dissemination of results.
Seed	Faster and cheaper registration and importation of modern varieties, primarily of vegetables.
Water Management Policy	Improvement of utilization of available water through more effective and decentralized management.
Rice	Conservation of water through adoption of short-season high-yielding varieties in coordination with changes in water release policies, privatization of mills, and some market liberalization.
Government Services - Information	Enhancement of scope of data collected and improvements in methods of collection.
Pest Control (Cotton)	Major shift in GOE role to regulation and quality control, allowing private sector to provide all goods and services.
Institutional Development - Public	Creation of PAU, institutionalization of the IAS, restructuring of PBDAC, public participation programs at MWRI and MEFT.
Water Quality	Strategy development, establishment of policies, and revision of basic law for drainage re-use.
Government Services - Research/Extension	New role for public extension workers and introduction of extension services by private sector (especially vis-a-vis exports of horticultural products), rejuvenation of planting materials for horticultural research

Table 2-2: Main Thrusts and Reforms Attempted, continued

Thrust	Nature of Reforms Attempted
Horticulture	Lowering refrigerated truck tariff, allowing private cold storage in airports, more competition in air freight services, coordinated inspection procedures for imported refrigerated containers, renewal of planting materials.
Subsidies (8) and Taxes (1)	Studies of food subsidies and taxes (including land tax), better targeting of food rationing.
Water	Enhancement of private participation in water management through WUAs and IMT.
Fertilizer	Reduction of import tariff, liberalization of distribution, privatization of production.
Fish (4), Milk (2), and Meat (1)	Restocking of the Nile with fish fingerlings, improved quality control regulations to promote fish exports, improved ingredient labeling of milk, meat tariff adjustment.
Land (3)/Land and Water (3)	Study of land divestiture, study of land tenure, establishment of policies for allocating land, establishment of integrated land and water plan, provision of land to use wastewater for irrigation.
Farmer Cost Sharing	Studies, development of plans, implementation of public awareness campaign, finalization of procedures.
Institutional Development - Private	Establishment of advocacy councils (made up of private trade associations) and GOE technical and financial support for their development.
Sugarcane	Plans and programs to enhance the efficiency of irrigation water use in the production of sugarcane.
Wheat	Study flour milling and trading to increase private participation, no price restrictions on 72% flour, reduce leakage in 82% flour by mixing maize at the mill.
Cooperatives	Promote commercial cooperatives independent of the GOE by amending the basic law and other means.
Government Services - Regulation	Study needed market regulation services, verify phytosanitary regulations as technically and economically justified, study phytosanitary regulations to remove those that are unnecessary barriers to trade.

Table 2-3: APRP Thrusts (Commodity Emphasis)⁷

Thrust	Number of Indicators
Cotton	51
Seed	22
Water Management Policy	18
Rice	14
Government Services - Information	12
Pest Control	11
Institutional Development - Public	11
Water Quality	10
Government Services - Research/Extension	10
Horticulture	9
Subsidies (8) and Taxes (1)	9
Water	9
Fertilizer	8
Fish (4), Milk (2), and Meat (1) ⁸	7
Land (3)/Land and Water (3)	6
Farmer Cost Sharing	5
Institutional Development - Private	5
Sugarcane	4
Wheat	3
Cooperatives	3

⁷As mentioned in the Introduction, “commodity emphasis” means that an effort was made to assign a commodity (agricultural output or input) to each benchmark. Those benchmarks that did not refer specifically to a commodity were assigned another topic. Cotton pest control is somewhat of an exception to this rule of classification. Because “cotton” already includes so many indicators, “pest control” was left as a separate category, in which there is also a significant number of indicators, even though virtually all of the pest control indicators address issues of cotton pest control.

⁸The indicators for meat (tranche I), milk and fish (tranche V) had no relation to each other as benchmarks, but are grouped as food items in this analysis because they are all important protein sources in the human diet.

Table 2-3: APRP Thrusts (Commodity Emphasis) (Cont.)

Government Services - Regulation	3
Other [Child Labor (1), Cropping Pattern (2), Food Security (1), General (2), Government Services - Marketing (2), Tariffs and Trade (1), Tractors (1), and Women (2)]	12
Total	242

Table 2-4: Relative Importance of Outputs, Inputs, and Other Topics in APRP Thrusts, (Commodity Emphasis)

Output or Input Thrust	Number of Indicators
<i>Outputs</i>	
Cotton	51
Rice	14
Horticulture	9
Fish (4), Milk (2), and Meat (1)	7
Sugarcane	4
Wheat	3
Subtotal, Outputs	88
<i>Inputs</i>	
Water Management Policy (18), Water Quality (10), Water (9), Farmer Cost Sharing (5)	42
Seed	22
Pest Control	11
Fertilizer	8
Land (3)/Land and Water (3)	6
Subtotal, Inputs	89
Subtotal, Outputs and Inputs	177
<i>Other Thrusts</i>	65
Total	242

Table 2-5: APRP Thrusts (Non-Commodity Emphasis)⁹

Thrust	Number of Indicators
Government Services - Regulation	34
Privatization/Private Investment	33
Liberalization - Marketing	24
Water Management Policy	22
Government Services - Research/Extension	22
Trade and Tariffs	18
Institutional Development - Private	14
Government Services - Information	14
Institutional Development - Public	11
Water Quality	10
Production	9
Liberalization - Pricing/Subsidies	8
Food Security	8
Farmer Cost Sharing	5
Government Services - Marketing	4
Cooperatives	3
Land	3
Total	242

When categorized without a commodity emphasis, the thrusts of APRP fall naturally into logical groups as follows:

- Reforming the market
- Improving key resource management
- Reforming and/or developing public institutions
- Developing the private sector
- Enhancing production
- Improving food security

⁹As mentioned in the Introduction, “non-commodity emphasis” means that each benchmark was assigned a topic that was not a commodity (agricultural output or input). This categorization complements that above, which uses commodities as the primary (but not sole) means of categorizing the benchmarks.

Key thrusts contributing to “reforming the market” include privatization, liberalization and changes in regulations. They also include trade, pricing, and cost sharing. Thrusts under key resource management include water management efficiency and effectiveness, and also water quality. Under reforming public institutions are included the key areas of research and extension, information systems, and institutional development. Cooperatives are also included here. Developing the private sector means as a policy advocate and to promote participation in decision making. Enhancing production includes subtopics like land use planning and freedom to allocate resources in agricultural production.

2.3 Relationships between and within Commodity and Non-Commodity Thrusts

Every indicator in APRP has been classified in this analysis under a non-commodity thrust, and many of them could also be classified by a commodity (input or output). For all the indicators that could be classified by commodity, there is also a non-commodity category in which it fits (e.g., cotton and privatization), and it may fit under both an input and an output (e.g., cotton and seed). This section mentions some of the key overlaps in classification as one way of revealing the emphases of the APRP program.

Most of the pest control benchmarks and indicators concerned changing the role of the public and private sectors in the provision of goods and services for pest control in cotton. Nearly all of pest control for other crops had been opened to the private sector before APRP. The GOE had retained a central role in pest control for cotton because of the strategic nature of the crop and the pernicious nature of the pests that the GOE wanted to control or keep out of Egypt. The efforts in this area spanned tranches I through IV, culminating in a decree allowing the private sector to fully participate. This was accompanied by revisions to pesticide registration, training for those in the industry, and a clear intention by MALR to remain involved in regulation.

Some of the early seed benchmarks were related to cotton, in that the GOE was producing cotton seed and the program was encouraging the use of acid delinted seed. Most of the seed benchmarks, however, were targeted to horticultural products (mostly vegetables), where the ability to develop, import, test, and deploy up-to-date seed varieties is truly critical to developing a modern and export-oriented horticultural subsector. These benchmarks were implemented in tranches II through V. In addition, horticulture and extension were also linked (in tranches I through IV) through efforts to develop new extension models for export-oriented horticulture. One benchmark (in tranche IV) addressed the need to modernize the stock of horticultural planting materials in the research system.

Much of the emphasis of APRP in privatization concerned entities in the cotton subsector. There were successful privatizations of public ginning and spinning companies (the latter through both sale and leasing), and a benchmark requiring privatization of public cotton trading companies. Rice was also a focus of efforts in privatization. In addition there were several benchmarks that aimed at privatization of water-related functions, including *mesqa* improvements, water user associations, and irrigation management transfer.

Liberalization efforts concentrated on the cotton market, but also at the beginning of APRP, on the rice and fertilizer markets. Changes in the marketing of seed cotton and lint continued from APCP throughout APRP. The cooperatives as well as private companies have seen their role in domestic marketing increase as a result of these benchmarks.

By the end of APRP, there was much more emphasis on the role of the GOE in providing reliable, timely information to the private sector participants in reformed markets. Thus MALR began collecting and publishing farm income data, CATGO enhanced its publication of seed cotton quality data during the marketing season, and MFT began publishing detailed trade data, as well as the texts of key trade agreements. The above institutions also began putting important data on the internet for easier and wider access.

2.4 Sequence and Continuity of Reform Efforts

This section explores the development of indicators under APRP over the period of the five tranches.

2.4.1 Sequence of Reform Efforts

Building on the accomplishments of APCP, APRP was anchored in agricultural production- and domestic marketing-related issues—particularly those related to cotton and fertilizer—and moved logically to export and other liberalization issues, to privatization, to new commodities like seed and horticulture, as well as to institutional, information, and other issues. Thus the first task of APRP in tranche I was consolidating the gains from APCP cotton benchmarks. To this set of carryover benchmarks was added a laundry list of benchmarks—starting with those covering fertilizer—that was developed before the technical assistance teams arrived and that resulted in a very large number of benchmarks to be accomplished at the very outset of the program. (Recognizing the challenge involved in accomplishing so many reforms in a short period of time, USAID eventually extended the deadline for accomplishment for those benchmarks not completed by the original deadline.) In subsequent tranches the program became more focused¹⁰. As mentioned above, the numbers of benchmarks and indicators became fewer with each successive tranche (see table, 1-1); as a result, the number of category/thrust pairs that characterized all the benchmarks in a tranche also decline with each passing tranche (see table 2-6).

With the exception of cotton and rice, on which efforts were more prolonged, market *liberalization* efforts were heavily concentrated in tranches I and II, indeed mostly tranche I. Commodities covered in this area also included fertilizer, pest control, seed, tractors, horticulture, meat, and wheat. Efforts to liberalize the domestic cotton market extended through tranche V. In this last tranche, one benchmark continued to address the balance between the public and private sectors in marketing, while another broadened the reform effort to include the need for the public sector to publish timely information on the size and quality of the crop as the season progresses.

Privatization benchmarks were common in the early part of APRP. In tranches I through III, these were primarily designed to transfer nationalized firms or their factories back to the private sector. Such privatization was attempted in cotton ginning, cotton spinning, and cotton trading; fertilizer plants; rice mills; and seed. Such benchmarks were absent thereafter, and the privatization program of the GOE generally stalled at this time. In some cases the easy privatizations had been accomplished; this was true in cotton spinning, as well as non-

¹⁰For further discussion of the context and consequences of fewer benchmarks, see below on page 17.

agriculture-related industries. In some cases there were valuation issues that held up further action; in the cotton ginning industry, where the MVE Unit documented successful privatization of Arabeya Ginning¹¹, but three of five public cotton ginning companies remain public, largely because of a lack of agreement on how to value and/or transfer the highly valuable land on which these companies assets are located. In the last two tranches of APRP, the emphasis of privatization benchmarks shifted to attempts to turn over certain functions to the private sector, such as management of irrigation and cooperatives, production and distribution of seed, and the provision cotton pest control services.

Reforms under the ASSS category were mainly in the areas of *regulations and procedures, institutional development, and information*. Taken as a whole, this often meant a new balance between the role of the public sector and that of the private sector, a balance more appropriate for a market-based economy. There were benchmarks addressing issues in research and extension in all five tranches, including ones to craft a new role and transfer of some extension to the private sector and one to develop the use of intellectual property rights in the ARC and its private partners. There were ASSS benchmarks in four of the five tranches covering cotton, pest control, information, and seed. Cotton benchmarks covered new varieties, import regulations, the new Egyptian cotton logo, quality testing and information dissemination. Benchmarks on information addressed issues of market information systems, collection and publication of data on farm income and gender-disaggregated data, information sharing to balance irrigation supply and demand, and publishing trade data and agreements. Seed benchmarks covered seed testing and registration, a new seed law, promotion of the private seed association, and breeders' rights.

Private institutional development was concentrated in the last three tranches and was focused on the development of trade associations for policy advocacy. In the public sector, institutional development benchmarks promoted the establishment of the Policy Analysis Unit in MALR, institutionalized the Irrigation Advisory Service in MWRI, led to changes in the structure of PBDAC, and promoted public participation in policy making at MEFT (now MFT) and MWRI. There were benchmarks in tranches III and IV targeted at horticulture, including efforts to enhance air and sea cargo service, allow exporters to bring reefers to farms, allow the private sector to operate cold storage at airports, promote the renewal of planting materials for research and distribution, and institute coordinated inspection procedures for imports to move reefers to export faster.

Benchmarks in the ALWRIUS category were largely focused on *water, its management, conservation, quality, and optimal allocation* to crops and regions. Associated topics included rice, sugarcane, and cropping pattern; fish; land; and cost sharing. Efforts in water management and water quality began in tranche I and continued in each tranche of the program. Improvements in water management policy included decentralization of water allocation decisions, partly through the better utilization of previously installed telemetry technology. MWRI also developed revisions to Law 12 intended to improve water management. Probably the most critical effort in this area is the work to “establish a system that improves the flow of real-time information between the Ministries [MALR, MWRI] with respect to irrigation demands

¹¹ Cf. Krenz and Mostafa, 2000.

and supplies¹².” This work corrected a gap in the water management system that had existed since the mid-1980s, when farmers were given back the right to plan their own cropping patterns, but there was little corresponding adjustment in the way water was allocated. Water quality was addressed mostly through a program of better management of the re-use of irrigation water discarded into “drains,” the channels that carry used irrigation water away from fields and that also contain various pollutants (including salts).

The *food security* benchmarks were an attempt to serve the needs of the MSHT for rationalizing the food subsidy system, a goal supported by the previous and current ministers, but political sensitivity prevented significant action in this area (tranches II and IV). The largest number of food security benchmarks was in tranche I, declining thereafter. Almost all work done on food security was studies; the only successful non-study effort was to begin mixing maize flour with wheat flour to reduce illicit leakage from the subsidized flour and bread system (tranche IV), an action that was recommended in a study by the MVE Unit on the wheat subsector¹³.

There were a number of *opportunistic or one-time benchmarks* not part of a larger coherent thrust:

- Fish: MALR was moving in the direction of restocking the Nile with fish, so one benchmark was incorporated in tranche V; fish export regulations were a perceived export problem for trade to the EU
- Milk (powder) labeling: one benchmark was included in tranche V as a very indirect way of promoting domestic milk production against the unfair competition of subsidized imported milk powder
- Women: after a study was completed, several actions were proposed and two were selected as indicators
- Child labor: a political issue in the US generated this benchmark, and the GOE agreed to rescind an old decree
- Contract farming: the benchmark was formulated in a general way, but it complemented other improvements in horticulture-related policies

There were also attempts to enter such one-time benchmarks as protecting antiquities from the water damage caused indirectly by agricultural policies and fortification of subsidized bread with iron, but these were not accepted into the MOU.

During the design of benchmarks in the last two tranches, there was some discussion of a “legacy” for the program. The sustainability of reforms was considered. In the end, however, this consideration was more relevant to the implementation activities of the project than to the design of benchmarks. If a set of reforms was not already amenable to being concluded by virtue of previous progress, it is generally not possible to do so simply by introducing concern for a legacy. Thus in the implementation activities of APRP, the technical assistance teams made provision for training and completion of any necessary hand-over, but one does not see any

¹²Partly to emphasize improvements in information systems, this benchmark is categorized in this analysis as falling in the information area. In reality it also falls in the water management category, as the information is transferred for the sake of better matching the supply of irrigation water to its demand.

¹³Cf. Tyner et al., 1999.

significant effect on the nature of the benchmarks and indicators in tranche V as a result of concern for sustainability.

2.4.2 Continuity of Reform Efforts

The continuity of efforts in key areas reveal much about the emphases of APRP. Since the pattern and sequence of reforms has been discussed above, continuity is summarized here by grouping the thrusts¹⁴ by their occurrence over the five tranches:

Throughout APRP (at least four tranches):

- cotton marketing
- cotton pest control
- cotton varieties and quality
- food security/subsidies
- information
- research/extension
- seed regulation
- water management
- water privatization
- water quality

In the first three tranches:

- cotton privatization
- rice privatization

In the last three tranches:

- private sector development

In three tranches but not continuously:

- cooperatives
- seed privatization

2.5 Changes in APRP as a Result of Fewer Benchmarks per Tranche

The significance of the decline in the total number of benchmarks and indicators with successive tranches arose in the Introduction, on page 2. Did this mean that the policy reform program became more focused, smaller in size, or some combination of the two?

Some evidence that the APRP program became substantively more focused with successive tranches is contained in table 2-6. **The full details of these combinations are shown in table A-2.** The number of category/thrust combinations (e.g., “PMT/cotton” or “ASSS/Information”) declined from 34 in tranche I to 14 in tranche V.

¹⁴The thrusts are listed alphabetically within the groups.

Table 2-6: Number of Category/Thrust Combinations (Commodity Emphasis), by Tranche

Tranche	Number of Category/Thrust Combinations Covering All Benchmarks
I	34
II	21
III	20
IV	15
V	14

Besides some greater focus, one could also say that there was some addition of new topics as the end of the program approached. Topics like women, fish production, and child labor had never been addressed or mentioned in previous work. The number of such new topics was not significant, however, so one can still say that overall, the program became more focused as it proceeded.

One must also consider the relationship of the benchmarks and indicators to the work program of APRP. Each successive tranche generally brought with it a greater backlog of implementation work. Many benchmarks required pilot programs to be established. When these succeeded, the GOE continued, and more importantly, expanded these in the following years, with help from APRP. The number of technical assistance professionals available in APRP increased somewhat over the course of the program (especially in the RDI Unit). Nevertheless, given the accumulating workload created through the benchmarks and associated implementation activities, it was important to the feasibility of the program that both the number of benchmarks and the number of thrusts decline.

Similarly, one would have to say that the amount of implementation work that could have been undertaken based on the number of benchmarks in tranche I was beyond the capability of the technical assistance teams to carry out in a satisfactory fashion. From this point of view, it was imperative that the program become more focused.

Thus, contrary to the hypothesis above that the program might have become smaller in size with fewer benchmarks, the APRP work program grew year by year. Indeed many more field activities were undertaken over the term of the program, with an increasing circle of ministries and agencies. Table 2-7 shows that workshops, seminars, training programs, and the numbers of participants in all of these generally increased each year of APRP. Workshops and seminars are a key activity in the implementation either of the benchmarks themselves or the programs that continue after the benchmark is accomplished. These activities are used to build consensus on the relevant policy reforms being undertaken and to draw up action plans for their implementation. Training programs impart required new technical skills in the same context.

Table 2-7: Numbers of RDI-APRP Workshops, Seminars¹⁵ and Training Programs, and Numbers of Participants, 1997-2001

Year	Workshops		Seminars		Training	
	Number	Participants	Number	Participants	Number ¹⁶	Participants
1997	10	347	12	465	3	15
1998	51	1713	12	239	18	244
1999	89	4842	32	925	13	490
2000	106	6440	27	807	0	0
2001	117	5007	24	1150	2	89
Total	373	18349	107	3586	36	838

Source: RDI Unit - APRP.

¹⁵Definitions of workshops and seminars are as follows:

Workshop: Involves one or more stakeholder groups. Highly participatory and usually includes at least one break-out into smaller working groups, which come back to the plenary session with products (e.g., flipcharts) with group agreement on responses to specific questions, recommendation and/or action plans. Workshop proceedings based on these group products are prepared and distributed to participants.

Seminar: Presentation to invited audience, with question and answer period. Usually held for presentation of a study team's results, and for consultant debriefings.

¹⁶Number of training programs by RDI Unit.

3. ACCOMPLISHMENTS IN AGRICULTURAL POLICY REFORM UNDER APRP

3.1 Accomplishments under APRP by Tranche

Table 3-1: Level of Accomplishment of Benchmarks/Indicators by Tranche

Tranche	Level of Accomplishment				Percent Accomplished or Exceeded
	Exceeded	Accomplished	Partially Accomplished	No Progress	
I	5	55	12	0	83
II	6	16	7	0	76
III	3	17	6	2	71
IV	8	18	9	2	70
V	2	30	0	0	100
Total	24	136	34	4	81

Notes: Accomplishment data are taken from the verification reports and verification update reports submitted by the MVE Unit. In a few cases, the USAID Mission disagreed with these determinations, but in general the Mission's final determinations are not available.

Data on accomplishment follow the reporting practice in each tranche. In tranche I, where benchmarks sometimes had separately numbered subcomponents, determinations of accomplishment were made for each subcomponent; in tranches II and III, one determination was made for each benchmark, even though sometimes more than one indicator was specified for a benchmark; in tranches IV and V, separate determinations of accomplishment were made for each indicator, as the indicators had become by this time more accurate reflections of the reform to be accomplished. In tranche III, one indicator could not be verified, so the total number of benchmarks in this total is different by one from the table 1-1.

The potential impact of reforms is more important than the precise number rated as accomplished. Even so, a large number of reforms was completed (more than one hundred fifty were exceeded or accomplished). Among these there were several individual benchmarks with significant actual or potential impact. (Some examples of these are given in the following section.) Another reason that the percent of benchmarks/indicators accomplished or exceeded is not an accurate measure of the GOE's efforts in reform is that a number of benchmarks in any given tranche may have been nearly accomplished. These are rated as partially accomplished, but in the text of the verification report, it was explained that the accomplishment was nearly complete.

The changing level of accomplishment over the successive tranches reflects:

- The inclusion of studies as benchmarks in tranche I but not thereafter. Studies were generally conducted by contractors in collaboration with the GOE and do not immediately affect any stakeholders, unlike reforms, which may have serious consequences for some stakeholders.
- The diversity of benchmarks, requiring collaboration with an ever-widening circle of GOE counterparts to undertake reforms in areas in which there had been no previous reform efforts.
- Especially in the earlier tranches, determinations of accomplishment included consideration of the spirit of the benchmark as well as the letter.
- Tranche V was very successful because with experience the benchmarks were designed and interpreted to be more feasible.
- In tranche V there was great pressure from both the Government's fiscal situation at the time and the impending end of the project to not lose any resources.

3.2 Accomplishments under APRP by Thrust

The nature and difficulty of reforms attempted vary widely across thrusts. It would be misleading to examine detailed statistics on accomplishments this way. Some benchmarks were formulated more carefully to be feasible, while others were more “bold and dynamic” and therefore more difficult to achieve. Every reform program needs a mix of such benchmarks; not every benchmark in a particular tranche can be “bold and dynamic.” The following table gives a flavor of accomplishments across the different thrusts (with the commodity emphasis).

One should first note that 81 percent is a very respectable level of accomplishment, given the wide range of reforms attempted and the number of different ministries and agencies responsible for implementing those reforms.

The high success rate of the water-related benchmarks can be traced primarily to a process in which they were designed in close coordination with MWRI and in which there were often no other ministries with which to coordinate. In addition the indicators were often new policies that the Minister was clearly committed to and/or they required “only” the implementation of a pilot program. This is not to diminish the importance of pilot programs; some of these programs have or will spread to the national level and may have a significant impact. Indeed a pilot program is an excellent vehicle to assess the viability of a new technique or process before enshrining it as policy. Pilot programs were used extensively in both MALR and MWRI (and jointly) for this purpose.

The largest component of “other inputs” is seed, primarily vegetable seed, where many useful reforms and much persuasion were attempted, but those in charge of policy were not ready to make some of the changes proposed.

Table 3-2: Level of Accomplishment of Benchmarks/Indicators by Thrust

Thrust	Level of Accomplishment				Percent Accomplished or Exceeded
	Exceeded	Accomplished	Partially Accomplished	No Progress	
Cotton	3	31	7	1	81
Other outputs	7	18	6	2	76
Subtotal, Outputs	10	49	13	3	79
Water	5	28	0	0	100
Other inputs	3	20	12	1	64
Subtotal, Inputs	8	48	12	1	81
Other thrusts	6	39	9	0	83
Total	24	136	34	4	81

3.3 Some Important Successes Stemming from Individual Benchmarks

The scope of this report does not include assessment of the impact of APRP benchmarks. That task is undertaken in many other studies of the MVE Unit. However, it is clear that some individual benchmarks have had, or will have, a very significant impact. This section is included here to complement the previous section, which only gave a brief glimpse at accomplishment for groups of indicators. By focusing briefly on a few individual indicators, the author argues that one might consider a program like APRP successful even if only the impacts of these few benchmarks were achieved.

Each of the individual benchmarks mentioned here has had, or is very likely to have, a major impact. Some benchmarks are grouped together to demonstrate how they complemented each other.

Table 3-3: Some Very Successful Benchmarks of APRP

APRP Goal	Focus of Benchmark(s)	Benchmark Topic(s) and Number(s)	Comments
Prices, Markets and Trade	Private sector's entry into cotton marketing	Cotton marketing rings (tranche V, D.1)	The marketing "rings" benchmark is the last in a series of APCP and APRP benchmarks addressing the liberalization of seed cotton marketing. In 2001/02, CATGO, behaving as an impartial intermediary, graded all (including private companies' and cooperatives') seed cotton, and there were no major complaints. This could pave the way for more private sales rings, and the cooperatives are now firmly re-entrenched as alternative sales points.
		CATGO collection, dissemination of data (tranche V, D.2)	During the marketing season, CATGO promptly published key data on the quality of seed cotton in hard copy and is working seriously on making this information available over the internet.
Private Investment and Privatization in Agribusiness	Privatization of cotton processing	Cotton ginning companies (tranche I, I.A.1.3.b)	Two out of five public companies were privatized. The newly private companies, especially Arabeya, rationalized their management and use of labor and made several technical improvements, including better cleaning. ¹⁷
		Cotton spinning companies (tranche I, II.A.2)	The GOE made a good-faith effort to privatize spinning companies despite the very complex nature of this process. Accomplishments include valuation of assets, production of leasing guidelines, privatization of some companies, and leasing of others. ¹⁸

¹⁷See Krenz and Mostafa, 2000.

¹⁸See Holtzman et al., 2000.

Table 3-3: Some Very Successful Benchmarks of APRP, continued

APRP Goal	Focus of Benchmark(s)	Benchmark Topic(s) and Number(s)	Comments
Agricultural Land and Water Resource Investments, Utilization and Sustainability	Crop-related water management and conservation	Rice and sugar cane water use (tranche II, C.4, C.5) Matching irrigation supply and demand (tranche IV, C.1)	First through crop-related exercises and then through MISD per se, the GOE has addressed the difficult issue of providing water to farmers when and where they need it, in the context of farmers' complete freedom to determine their cropping pattern. This required collection of planting intentions data in real time, rapid processing of the data, exchanging the data between the two ministries, and communicating to farmers the resulting water schedule. Discussions are now going on between MALR and MWRI concerning nationwide implementation of this program.
Agricultural Sector Support Services	Data collection, dissemination	Farm income data (tranche IV, D.7)	MALR began the scientific collection of farm income data, which are critical to policy evaluation and thus policy reform. This work is in addition to other improvements in data collection, analysis, and dissemination supported by assistance from both the RDI and MVE Units. ¹⁹
	Change of GOE role in pest management	Cotton pest control (tranche IV, D.6, tranche I, I.A.I4c(ii), tranche II, C.9, and tranche III, D.7)	The implementation of this program represents a major change in the role of the GOE in the protection of a strategic crop. After providing training to pesticide companies and farmers, the GOE reduced its role to regulation, handing over production-related functions like pesticide sales and application to the private sector. ²⁰

¹⁹See the forthcoming MVE Unit report on improvements in data systems under APRP.

²⁰See the forthcoming MVE Unit report on changes in the roles of the public and private sectors.

Table 3-3: Some Very Successful Benchmarks of APRP, continued

APRP Goal	Focus of Benchmark(s)	Benchmark Topic(s) and Number(s)	Comments
Agricultural Sector Support Services (continued)	Development of private policy advocacy groups	Private (export) associations (tranche III, D.2) Commodity councils (tranche IV, D.1 and tranche V, D.6)	The achievement of dialogue and trust between the public and private sectors is often a key turning point in the development of markets, according to Tyner. The GOE has devoted considerable effort to developing associations of private exporters and giving them a voice in policy making through the institution of commodity councils.
Food Security and Poverty Alleviation	Food production	Restocking the Nile with fish (tranche V, E.2)	This benchmark called for the development of plans, but the GOE went much further: actual restocking of the Nile with fish fingerlings was carried out. This might lead to a significant increase in production of a food high in protein and low in fat.

3.4 Some Longer-Run Benefits of Benchmark Implementation

There is a difference between the effect of a formal reform (benchmark) and a benefit that comes through implementation, the latter being the emphasis in this section. The name of the RDI Unit emphasizes that the role of APRP was not only to design reforms, but also to implement them, which includes follow-up activities and some capacity-building to ensure sustainability. Participation is a good example of a benefit of implementation: many benchmarks, especially pilot field programs, were implemented using a participatory approach. By the end of APRP, some benchmarks were approved that required participation as a general principle in a ministry's operation. This is another kind of project benefit: the institutionalization of beneficial approaches used by the project to achieve individual reforms. This report only mentions these kinds of additional benefits briefly. Other MVE studies are examining in more depth the impact of reform in these areas.

3.4.1 Fostering Inter-Ministry and Inter-Agency Cooperation

To accomplish the tasks of the benchmark on matching irrigation supply and demand (tranche IV, C.1), cooperation at several levels between the staff of the MALR and MWRI was essential.

A pilot program was first implemented to explore the constraints and possibilities of this cooperation at the local level. During the implementation program, many difficulties were dealt with, and the staff at the local level and those supervising them developed good working relationships with their counterparts in the other ministry. These relationships will not only support the successful implementation of this program in future years, they might also support effective programs of other types, as there are undoubtedly many other ways that MALR and MWRI could work together.

Another benchmark that fostered cooperation across agencies required coordinated inspections of imported refrigerated containers (tranche IV, D.8). To implement this benchmark, the GOE put the staff of several agencies (from different ministries) under the supervision of one agency and co-located their laboratories in one building. This led to faster completion of required testing and may lead to greater availability of refrigerated containers for use by exporters. In contrast to the MISD benchmark, this cooperation was "imposed" from above, rather than being developed from below.

3.4.2 Building Capacity

Some APRP benchmarks were designed with an indicator requiring a policy change and another indicator requiring implementation. This was true for some of the data collection benchmarks. The implementation of such benchmarks led to enhanced technical capacity, especially in MALR. The primary example is the collection and analysis of farm income data, which were then used further to improve the national accounts. Due to APRP's close cooperation with MALR, the EAS was also able to benefit from collaboration with the MVE Unit to improve its abilities in the areas of within-season crop yield forecasting (cotton and wheat) and area measurement, even though there was no formal benchmark requiring this. Work on the benchmark on matching irrigation supply and demand also involved training of ministry staff in the use of new computer programs for handling planting data and water allocations.

3.4.3 Supporting Reform Champions

For a significant policy reform to succeed, it is very often the case that it must have a champion within the government—a senior official who is willing to put resources into it and take certain risks to implement it. APRP helped some of these policy champions to succeed by coordinating, catalyzing, and providing technical assistance and other resources. The champions then provide role models and hard evidence of success that can change the approach of other civil servants, who often strive mostly to not “rock the boat.” Policy champions played key roles in the successes of the benchmarks on MISD, cotton pest management and pesticide regulation, and agricultural data collection, and probably on others as well.

3.4.4 Promoting Changes in Attitudes and Approaches

APRP promoted changes in attitudes and approaches by at least two methods. One was to require public participation in decision making by a benchmark. Such participation often leads to changes in the attitudes and approaches of officials because it brings new ideas and new information to light. Secondly, APRP demonstrated participatory methods by using them to develop consensus during benchmark implementation. The Public Participation in Decision Making benchmark of MWRI (tranche V, C.2) and the transparency and participation benchmarks from MFT (tranche V, D.4 and D.10) are examples of required participation at the end of the project, after many implementation activities had used this approach. These latter benchmarks were supported strongly and directly by the Ministers concerned.

4. OVERALL SUCCESS AND LESSONS LEARNED

4.1 How Successful Was APRP in Achieving Benchmarks?

As shown above on page 22, the GOE had an 80-percent rate of success in accomplishing benchmarks and/or indicators under APRP. This is remarkable, given the broad topical scope, and the several different types, of indicators attempted. The following table gives some examples of the different types of benchmarks and indicators that were implemented.

Table 4-1: Types of APRP Benchmarks and Indicators

Benchmark/Indicator Type	Example(s)
Conduct a study (tranche I only)	Economic and technical feasibility of introducing short season cotton varieties
Prepare a plan of action	Develop a phased comprehensive plan to liberalize and privatize cotton ginning
Pilot program to test new policy	Matching irrigation supply and demand, testing a new model for research/extension, testing block planting/irrigation of short-season rice varieties
Decree or policy statement to change policy	Withdrawal of GOE from cotton pest control
Full implementation of new policy	Publish trade statistics, privatize a company
Meet a performance standard	Lower dwell time of imported refrigerated containers, jobs creation

Topically, the benchmarks covered every aspect of the agricultural economy from production through domestic marketing and processing to exports (and imports). Thus meant that several ministries collaborated with the project in implementing the policy reforms, including MALR, MWRI, MSHT, and MFT, as well as the Ministry of Transportation and some other agencies.

Certain types of benchmarks could not be accomplished given the counterpart ministries working (and not working) under APRP and their authority. These included:

- Changing import duties
- Passing laws in the People's Assembly

Other benchmarks were politically too sensitive, e.g., some of those concerning the food rationing system.

4.2 Lessons Learned

This section derives some lessons learned from the design, implementation and verification of policy reform benchmarks and indicators during APRP.

4.2.1 Pilot Programs

APRP demonstrated the utility of testing approaches with pilot program based on a new policy and then expanding the program steadily after modification based on the pilot experience. The utility can be in the technical results or the opportunity to convince policy makers or both. The pilot program is not a novel idea, but incorporating this concept into a policy reform program was somewhat new. Examples include the matching irrigation supply and demand program, the collection of farm income data, and the regulation of the rice irrigation cycle to encourage the use of short-season varieties.

4.2.2 Pace of Reform and the Need for Focus

The experience of APRP reveals much about the pace of reform that is possible even in the context of a gradualist approach like that of the GOE. One can make significant progress in changing old ways of doing business if patience, assistance and consensus building are applied. The withdrawal of the GOE from cotton pest management was not possible in one tranche (tranche I), but over several years, it was accomplished. This kind of progress requires the focusing of resources in certain areas. It thereby argues for the limitation of project activities to those that are deemed most important, as opposed to answering any and all requests for assistance from other projects and those in the private sector.

4.2.3 Importance of Information and Analysis

In addition to incorporating the “expected” reforms in areas like market liberalization, reorientation of the GOE role, and privatization, the project demonstrated the importance of information and analysis to a market system. It is interesting to see this theme running through a number of benchmarks in the final tranche of APRP (see table 4-2).

4.2.4 Lengthening the Reform Design Cycle

The experience of the MVE Unit throughout APRP reveals that the design cycle of the project could have been more supportive of well-designed benchmarks. The cycle should have allowed for longer gestation periods. In this way consensus building on the precise reform necessary could go on mostly before the benchmark was agreed to. This would help alleviate two problems encountered in some benchmarks: 1) design was based on insufficient understanding of the problem, how it could be solved, and by whom and 2) there was not really consensus in the GOE to implement the reform.

Table 4-2: Prevalence of Information Theme in Benchmarks of Tranche V

Benchmark	New Policy	Relation to Information Theme
D.2	CATGO publishes HVI test results	Potential traders and clients get access to complete information on key characteristics of cotton.
D.4	Publication of trade data and trade agreements	Potential traders get access to detailed information on Egypt's imports and exports, and thus on potential markets.
D.7	E-trade	Cotton lint and yarn traders are encouraged to share information about their exportable products through the use of electronic technology
D.8	Vegetable Seed "Screening"	Seed producers are allowed to import samples for testing to acquire valuable information about their suitability for sale in Egypt.
D.9	Technology Commercialization	Private companies gain access to the embedded genetic information in seeds and other ARC discoveries.
D.10	Transparency in Decision-Making	MFT shares information with stakeholders on potential impacts of new regulations.
D.11	Fish Export Regulations	Egypt establishes SPS and quality/labeling standards for fish. Such standards, when enforced by the GOE, are information valuable to EU importers, who then need not verify the information directly themselves.

An example of the first problem is the dwell time benchmark (tranche IV, D8). There were two different issues in this case: one was that the dwell time was probably never as high as it was stated in the benchmark background text (i.e., the assumptions underlying the benchmark were not correct). The other was that part of the reason for the high "dwell time" was that the private sector was itself using the customs area as the cheapest place to store its containers (i.e., those reporting the problem had mixed incentives to report it accurately). Most important, though, improving the speed of inspection would not really increase the flow of containers available for export; it would only create a temporary increase in those available; the long-run flow of containers is determined by their supply and demand. If there is a relatively constant dwell time, regardless of whether it is long or short, the number of containers available for export will not be affected by this dwell time.

If the design cycle had been longer, the design team would have been able to discover these same facts (which only came out during verification). In this case a different benchmark might have been proposed to enhance the supply of containers available for export, if there were other problems that did contribute to this problem. (It might be that the quantity of produce ready to leave Egypt is insufficient to justify a larger supply of incoming containers.)

An example of the second problem is the one benchmark that could not be verified. This had to do with reduction of inventory in public companies, but the data were too sensitive to be released. More discussion of the implications of agreeing to such a benchmark might have led to its rejection by the GOE or its redesign in a form acceptable to both governments.

In other cases, the solution of a problem that was properly conceptualized might be detailed further during the pre-MOU period and then be implemented smoothly (i.e., with full consensus and commitment) after the signing of the MOU. Examples of the latter in tranche IV are:

- In benchmark D.1 (Agribusiness Advisory Councils), there was a lack of clarity during implementation that the objective of the benchmark concerned the membership of private associations/unions in the ACC, not the membership of individuals or companies; accomplishment was thus partial, whereas full accomplishment was feasible.
- Benchmark D.2 (Airfreight Transport) suffered from both problems. There was confusion over whether the “CAA” responsible was the Cairo Airport Authority or the (Egyptian) Civil Aviation Authority, and there was also lack of clarity over the facts about competition in services and international agreements that affected who could offer services. In addition there was no commitment by any agency or EgyptAir to make any policy reform. This situation might have been improved with more design time. Either the indicator would have been refined, or the benchmark would have been rejected by the GOE as infeasible.

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APPENDIX

Appendix Table A-1: Number of Benchmarks/Indicators by Category, Thrust, and Tranche (Commodity Emphasis)

Category/ Number of Indicators	Thrust	Tranche	Number of Indicators
Prices, Markets, and Trade	Cotton	I	14
49		II	4
		III	6
		V	3
	Fertilizer	I	3
		II	3
	Horticulture	IV	2
	Meat	I	1
	Pest Control	I	1
	Rice	I	2
		II	2
		III	2
	Seed	II	3
	Tariffs and Trade	I	1
	Tractors	I	1
	Wheat	I	1
Private Investment and Privatization	Cooperatives	I	1
42		II	1
		V	1
	Cotton	I	4
		II	3
		III	5
	Fertilizer	I	2
	General	III	2
	Land	I	1

Category/ Number of Indicators	Thrust	Tranche	Number of Indicators
	Pest Control	I	1
		IV	2
	Rice	I	2
		II	1
		III	1
	Seed	I	2
		II	1
		IV	2
	Water	I	1
		II	3
		III	3
		IV	2
	Wheat	I	1
Agricultural Land and Water Resource Utilization and Investments	Cropping Pattern	I	2
50	Farmer Cost Sharing	I	5
	Fish	V	2
	Land	I	1
		II	1
	Land and Water	I	2
		III	1
	Rice	I	1
		II	2
		III	1
	Sugarcane	I	1
		II	2
		III	1

Category/ Number of Indicators	Thrust	Tranche	Number of Indicators
	Water Management Policy	I	4
		II	2
		III	4
		IV	4
		V	4
	Water Quality	I	2
		II	3
		III	2
		IV	2
		V	1
Agricultural Sector Support Services	Child Labor	V	1
90	Cotton	I	3
		II	4
		III	2
		V	3
	Fish	V	2
	Government Services - Information	I	2
		II	2
		IV	5
		V	3
	Government Services - Marketing	III	2
	Government Services - Regulation	I	3
	Government Services - Research/Extension	I	1
		II	2

Category/ Number of Indicators	Thrust	Tranche	Number of Indicators
		III	2
		IV	2
		V	3
	Horticulture	III	1
		IV	6
	Institutional Development - Private	III	2
		IV	2
		V	1
	Institutional Development - Public	II	5
		III	2
		V	4
	Milk	V	2
	Pest Control	I	1
		II	2
		III	3
		IV	1
	Seed	II	5
		III	4
		IV	3
		V	2
	Women	IV	2
Food Security and Poverty Alleviation	Food Security	I	1
11	Subsidies	I	3
		II	2
		III	2

Category/ Numberof Indicators	Thrust	Tranche	Number of Indicators
		IV	1
	Taxes	I	1
	Wheat	IV	1
Total			242

**Appendix Table A-2: All APRP Benchmarks by Category, Thrust and Tranche
(Commodity Emphasis)**

**Appendix Table A-3: All APRP Benchmarks by Tranche, Category, and Thrust
(Commodity Emphasis)**

Appendix Table A-4: All APRP Benchmarks by Category, Thrust and Tranche (Non-Commodity Emphasis)

**Appendix Table A-5: All APRP Benchmarks by Tranche, Category, and Thrust
(Non-Commodity Emphasis)**

Other candidates for great benchmarks include:

1. FSPA tr IV E1 reduce leakage; Minister supposedly committed to this (recommended by Tyner in MVE study): **get latest nos. from Sayed Haggag** *apparently they are using a lot of maize but not mixing most of it at the mill*
2. PIPA tr III B.7 privatization of ag affiliated cos., including Wady, which with Nile was the ag export monopoly in the olden days; Nile was liquidated; Wady was sold long after ps entered hort export, but the LE 90+ m sale was important symbolically
3. ASSS tr IV D.8 coordinated inspections of imported containers; dwell time reduced to 1-2 days on account of GOE, altho ps leaves containers there longer for free storage; what the GOE-related dwell time was before the BM is not clear; it might have been as much as 15 days. Major bureaucratic breakthrough that shows what is possible for cooperation among agencies?